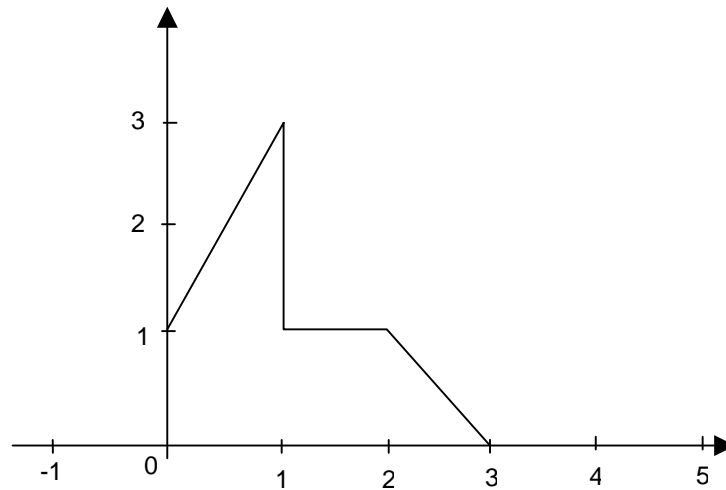


MINI TEST 1

NAME: _____

STUDENT NO: _____

- 1.) Sketch the generalized derivative of the signal depicted below. (5 marks)



2.) Use an analytical method to determine whether or not the signals below are periodic.
Find the fundamental period T for those that are. (5 marks each)

2.1.) $\cos 2\pi t + \sin 5\pi t$

2.2.) $\cos 2\pi t + \sin 6t$

3.) Sketch the following continuous-time signals, their generalized derivative and give the generalized derivative in analytical form. (5 marks each)

3.1.) $x(t) = u(t+1) - 2u(t-1) + u(t-3)$

3.2.) $x(t) = (t+1)u(t-1) - tu(t) - u(t-2)$

